ENGINEERING AND TECHNICAL DESIGN

- 1. Objective. As prescribed in AFR 8-10, this Air National Guard Manpower Standard (ANGMS) quantifies the full-time manpower requirement to accomplish the tasks described in the work center description (WCD) for varying levels of workload volume.
- 2 Authority. The 85-, 86-, and 89-series of Air Force (AF) and Air National Guard (ANG) directives contain AF and ANG policy and procedural guidance for the Engineering and Technical Design function. This ANGMS has been developed in accordance with procedures contained in AFR 25-5 and is the result of a functional review.
- 3. Applicability. This standard applies to all Air National Guard flying units, plus the Combat Readiness Training Centers (CRTC) at Volk Field, WI; Phelps-Collins, MI; Savannah, GA; and Gulfport, MS. Excludes the four Air National Guard bases at Buckley, CO; Otis, MA; Rickenbacker, OH; and Selfridge, MI.
- 4. Standard Data:
 - a. Classification. Type II.
 - b. Approval Date. 10 Dec 91.
 - c. Manpower Data Source. Operational Audit, using historical record and technical estimate techniques,
 - d. Standard Manpower Equation. $Y = 96.65 + 32.71X_1 + 54.62X_2$.
 - e. Workload Factors:
 - (1) Title.
 - (a) X₁ An Architect-Engineer (A-E) Designed Project.
 - (b) X2. An In-house Designed Maintenance, Repair, or Construction Project.
 - (2) Definition.
- (a) X₁. The average number of maintenance, repair, or construction projects requiring detailed plans and specifications that are designed monthly.
 - (b) X2. The average number of A-E contracts (including delivery orders) awarded monthly.
 - (3) Source.
 - (a) X1. Manual count of logs maintained in the Engineering and Technical Design work center.
 - (b) X2. Manual count of logs maintained in the Engineering and Technical Design work center.
- 5. Application Instructions. Apply this standard using the most current 12 months' workload for the manpower equation in Para 4d. Refer to the manpower table to ensure adherance to the computed extrapolation limits. Should the extrapolation limits be exceeded, see AFR 26-1, Volume 3, Paragraph 1-20 for quidance.
- 6. Statement of Conditions. This work center's normal hours of operation are 40 hours per week with a variance in daily operating hours from an 8 hour/5 day week, a 10 hour/4 day week, or a 9 hour/5 day week combined with a 9 hour/4 day week.

BY ORDER OF THE SECRETARY OF THE AIR FORCE.

JOHN B. CONAWAY Lieutenant General, USAF Chief, National Guard Bureau

OFFICIAL

E. DARDEN BAINES
Director
Administrative Services

2 Attachments

- 1. Work Center Description
- 2. Standard Manpower Table

No. of Printed Pages: 10
OPR: ANGRC/MOE ((Capt Castleberry)
Approved by: Lt Gen Conaway
Edited by: Ms. N. Salch
Distribution: F, X

WORK CENTER DESCRIPTION

Engineering and Technical Design

DIRECT:

1. PROJECT PLANNING:

- 1.1. PROCESSES REQUEST. Processes request for project design support through Work Order Request (AF Form 332), and other customer request/input, to include identification of general scope of the request to include preparation of project design folder.
- 1.2. PERFORMS FACILITY SURVEY. Performs facility survey to determine physical condition of facility.
- 1.3. COORDINATES PROJECT REQUEST. Coordinates project request with Real Estate on matters involving space authorization, allocation, or variation in space utilization.
- 1.4. ASSISTS FACILITY MANAGER. Assists facility manager with analysis of recurring maintenance trends to identify major project for accomplishment through Real Property Maintenance (RPM), Minor Construction (MC), or Military Construction Program (MCP).
- 1.5. REVIEWS INVENTORY SPACE SUMMARY. Evaluates Inventory Space Summary HAF LEE (AR) 7115 report and ensures data is updated to reflect facility survey condition codes.
- 1.6. **DEVELOPS SIX-YEAR RPM PLAN.** Develops the six-year RPM plan based on physical condition of facility. Coordinates the RPM project and other facility survey data with the Installations Facilities Working Panel/Facilities Board.

2. PROJECT PROGRAMMING:

- **2.1. DEVELOPS FACILITY REQUIREMENTS PROGRAM (FRP).** Develops annual six year FRP submittal based upon facility survey. Includes programming projects by specific year and in specific funding program.
- 2.2. PREPARES MILITARY CONSTRUCTION PROJECT. Prepares military construction project data (DD Form 1391 and DD Form 1391c) to include major project element, associated cost, project justification, and other specific project requirement data. Includes preparation of MCP (DD Form 1390) and Guard and Reserve Military Construction (DD Form 1390S-1 and DD Form 1390S-2).
- 2.3. REVISES PROJECT DOCUMENT. Revises DD Form 1391 and 1391c resulting from review by higher headquarters/other agencies.
- 2.4. DEVELOPS PROGRAM PROPOSAL. Develops program proposal for accomplishment of projects by inhouse force, Prime BEEF, Simplified Acquisition of Base Engineer Requirements (SABER), Job Order Construction System (JOCS) contract, or line-item construction contract.
- 2.5. REVIEWS SIX-YEAR FRP. Briefs installation's Facilities Working Panel/Facilities Board on the recommended six-year FRP.

3. PROJECT DESIGN:

3.1. DESIGNS PROJECT IN-HOUSE:

- 3.1.1. PERFORMS SITE SURVEY. Assembles data from as-built drawings, facility jacket folders, and other sources. Determines actual physical condition of existing facilities, performs measurement of actual system capacities, and determines changes needed in systems and facilities.
- 3.1.2. SURVEYS PROJECT SITE. Locates reference points, field corners, bench marks, and grades for ditches, sidewalks, paving, streets, fences, building locations, structures, and interior dimensions with the use of a transit, engineer's level, chain, and rod to establish points for planning and design references, maps, drawings, and construction.
- 3.1.3. PREPARES LAYOUT OF WORK SKETCHES AND INFORMATION AND PERFORMS DESIGN ANALYSIS. Develops plans and notes. Coordinates design requirements of the various engineering disciplines and organizes the design requirements into a cohesive and logical sequence. Performs design analysis from

survey findings. Prepares rough sketches and notes to be used by draftsman to make final drawings. Applies value engineering principles.

- 3.1.4. PREPARES PROJECT SPECIFICATION. Prepares specifications to include discussions of required quality standards, specific materials, and equipment items desired; extent and coverage of items under warranty or guarantee; required publications, manuals, and training; spare parts and special tools list; test, samples, and certifications; procedures to be followed if materials fail to pass testing; safety and fire prevention; and Government Furnished Material (GFM) and its storage.
- **3.1.5. DEVELOPS COST ESTIMATE.** Develops and maintains a continuing Current Work Estimate (CWE) made up of the estimated cost, contingencies, supervision and administration, other direct costs, pending costs, GFM, and purchase orders.
- **3.1.6. DRAFTS DESIGN.** Drafts final plans, maps, and drawings required for a project from engineer's rough sketches.
- 3.1.7. FINALIZES DESIGN. Revises plan, specification, and other aspects of the design resulting from the review process and prepares a final detailed cost estimate.

3.2. DESIGNS PROJECT WITH A-E FIRM:

- 3.2.1. DEVELOPS A-E STATEMENT OF WORK (SOW)/PROJECT BOOK. Describes the project clearly, outlines the objective to be accomplished, specifies in detail the scope and nature of work, services, and material to be furnished by the A-E, the criteria, and special requirements to be followed in prosecution of work; outlines material, information, and services to be supplied by the government; and establishes production schedules, estimates construction cost of facility, and A-E fees.
- 3.2.2. PROVIDES DATA FOR PUBLICATION. Lists project title, its location, scope of services required, estimated construction cost range, eligibility limitation, and special qualifications, or performance data. Submits data to contracting function for coordination and further submittal for publication in the Commerce Business Daily if A-E fee is in excess of \$10,000.
- 3.2.3. PREPARES AND MAINTAINS A-E QUALIFICATIONS FILE. Maintains current data indicating A-E qualifications consisting of properly executed Standard Form 254, Architect-Engineer, and Related Services Questionnaire.
- 3.2.4. PARTICIPATES ON SELECTION BOARD OF A-E SERVICE:
- 3.2.4.1. PREPARES A-E SELECTION BOARD INFORMATION.
- **3.2.4.2. PARTICIPATES ON PRESELECTION BOARD.** Participates on selection board for A-E contracts. Analyzes project and SOW to determine A-E services and expertise required. Evaluates qualification of A-E firms considered.
- **3.2.4.3.** PARTICIPATES ON FINAL SELECTION BOARD. Participates on selection board for A-E contracts. Analyzes project and SOW and evaluates qualifications of A-E firms considered.
- 3.2.5. CONFERS AND NEGOTIATES WITH PROSPECTIVE A-E FIRM:
- 3.2.5.1. **DEVELOPS EXAMPLE.** Develops detailed example of type and quality of work expected of A-E contractors and indicates material furnished by the government as outlined in the SOW.
- 3.2.5.2. **EXECUTES CRITERIA REVIEW CONFERENCE.** Executes conference prior to negotiations with prospective A-E firm to ensure they have a thorough understanding of the project.
- 3.2.5.3. **NEGOTIATES WITH FIRM.** Assists contracting officer in negotiating with A-E firm to develop an equitable contract.
- 3.2.6. EXECUTES A-E CONTRACT:
- **3.2.6.1. PROVIDES INPUT FOR A-E.** Collects data for A-E including project requirements, utility information, record drawing review, and site visit.

- **3.2.6.2. VERIFIES A-E CONTRACT TASKING.** Reviews A-E submittal for accuracy in accordance with contract documents. Processes requests for payment to A-E through contracting.
- **3.2.6.3. REVIEWS PRELIMINARY WORK.** Reviews project and incorporates technical comments from ANGRC/DE, various disciplines, and concerned base agencies for inclusion in the project.
- 3.2.6.4. REVIEWS FINAL WORK. Reviews project to ensure comments identified in the review of preliminary work are incorporated in the final project.
- 3.2.7. PREPARES REPORT OF ARCHITECT-ENGINEER CONTRACT AWARDS, RCS: DD I&L (Q)559. Prepares and submits AF Form 1324 to ANGRC/DE quarterly for A-E contracts of fees exceeding \$25,000.
- 3.2.8. PREPARES PERFORMANCE EVALUATION REPORT. Prepares DD Form 1413, Performance Evaluation-Architect-Engineer Professional Services Contractor, for each contract with A-E fees over \$10,000.

4. PROJECT CONSTRUCTION:

- 4.1. IN-HOUSE/PRIME BASE ENGINEER EMERGENCY FORCE (BEEF) CONSTRUCTION:
- 4.1.1. COORDINATES PROJECT. Coordinates project with facility manager to schedule project accomplishment, advises customer of scheduled start date, and estimated completion date.
- **4.1.2. INSPECTS PROJECT SITE.** Inspects site to ensure compliance with project plans and specifications. Provides project status.
- 4.1.3. UPDATES AS-BUILT DRAWING. Updates as-built drawings upon completion of project.
- 4.2. DEVELOPS SABER/JOCS CONTRACT:
- **4.2.1. DEVELOPS SOW.** Develops SOW including line item materials to be used, material costs, material quantities, project lists, schedules, and specifications for project accomplishment.
- **4.2.2. SUBMITS PROJECT.** Submits project requirements to contracting for action to include the SOW and a project synopsis.
- 4.2.3. NEGOTIATES PROJECT. Negotiates project requirements with contractor.
- **4.2.4. INSPECTS PROJECT.** Inspects project to ensure compliance with plans and specifications. Provides technical consultation of projects requirements and any changes necessary. Provides project status update and updates as-built drawings upon completion of project.

4.3. COMPLETES LINE ITEM CONTRACT CONSTRUCTION:

- **4.3.1. ASSEMBLES PROJECT DATA.** Assembles project data for contracting action including letter or request, DD Form 1391 data, project synopsis for Commerce Business Daily advertisement, and liquidated damages estimate.
- **4.3.2. REVISES PROJECT DATA.** Revises submittal package to comply with changes required by contracting office.
- 4.3.3. PREPARES BID SCHEDULE. Compiles data from working drawings and design analysis into a bid schedule.
- **4.3.4. REPRODUCES DRAWING AND SPECIFICATION.** Reproduces the complete final project packages for contracting using blue print machine or ozalid method. Assembles project package.
- **4.3.5. ESCORTS PROSPECTIVE BIDDER.** Escorts prospective bidder to the job site to ensure an understanding of all contract requirements.
- **4.3.6. ATTENDS PRE-BID CONFERENCE.** Discusses project with contracting to ensure inclusion of all contracted requirements and elimination of any ambiguities that would cause issuance of contract change orders.

- **4.3.7. ATTENDS BID-OPEN CONFERENCE.** Reviews bids received by contracting to determine if bids are realistic to the scope and quality of work required and advises contracting of results.
- 4.3.8. SCHEDULES PRE-CONSTRUCTION CONFERENCE. Establishes meeting time, place, and attendees.
- **4.3.9. ATTENDS PRE-CONSTRUCTION CONFERENCE.** Discusses all items on the Pre-Performance Conference and Pre-Final Payment Checklist with attendees to ensure requirements and procedures are understood.
- **4.3.10. REVIEWS MATERIAL SUBMITTAL.** Ensures that the materials the contractor proposes to use comply with the contract requirements.
- **4.3.11. INVESTIGATES CHANGE IN SITE CONDITION.** Physically inspects work site to determine functional requirements and adapts the project design to the changed site conditions.
- **4.3.12. COORDINATES ON USING AGENCY CHANGE OR DESIGN DEFICIENCY.** Prepares documentation to define necessary change resulting from using agency criteria or design deficiencies occurring during the design or construction phase of a project. Prepares cost estimate.
- **4.3.13. INITIATES CONTRACT MODIFICATION.** Reviews contract specifications and design documents, revises cost estimates and specifications, and coordinates scope of change order with contracting.
- **4.3.14. VISITS SITE TO INSPECT CONSTRUCTION.** Physically inspects work site to ensure construction is progressing as scheduled.
- 4.3.15. UPDATES PROGRESS LOG. Updates daily construction log.
- **4.3.16. EXAMINES CONSTRUCTION PROGRESS SCHEDULE.** Examines progress schedule submitted by construction contractor and verifies progress.
- **4.3.17. COORDINATES REQUEST FOR PAYMENT.** Recommends approval or disapproval of contractor requests for payment based on construction progress.
- **4.3.18. PREPARES FINAL PUNCHLIST.** Inspects work site and identifies any deficiencies to ensure the overall aspects of the contractor's performance conform with contract requirements.
- **4.3.19. ATTENDS FINAL ACCEPTANCE INSPECTION.** Inspects work site to identify any deficiencies and ensure the overall aspects of the contractor's performance conform with standards.
- 4.3.20. PREPARES DESIGN AND CONSTRUCTION MANAGEMENT REPORT, RCS: HAF-PRE (AR)7124. Maintains records of design time expended for reimbursement of design costs, determines information to be updated on the AF Form 1959, updates, and forwards to NGB/DE.
- 4.3.21. PREPARES AS-BUILT DRAWING. Transcribes as-built information to appropriate as-built drawings/files.
- **4.3.22. PREPARES PROJECT CLOSEOUT.** Coordinates elements of project closeout including real estate/real property, equipment training/familiarization for in-house maintenance force, and project data filing.
- **4.3.23. UPDATES PROJECT FUNDING INFORMATION.** Prepares, briefs, records, and consults with appropriate managers on project costs, adjustments, and final costs.

5. UTILITY CONTRACT:

- 5.1. PREPARES UTILITY BROCHURE. Develops service specifications by determining the need and surveying the requirement for the utility. Compiles all pertinent documentation reflecting the status of the contract.
- **5.2. UPDATES UTILITY BROCHURE.** Reviews contents of brochure and ensures all pertinent documentation is up-to-date. Reviews operation information, out of service periods, utility invoices, actual operating expenses, and revisions to service specifications.
- **5.3. REVIEWS UTILITY INVOICE.** Reviews and computes utility invoice to ensure quantities billed are accurate and rates are correctly applied and reasonable.

- 5.4. PREPARES UTILITY RESALE BROCHURE. Prepares a utility resale brochure for each reimbursing activity to include estimated usage.
- 5.5. UPDATES UTILITY RESALE BROCHURE. Prepares a utility resale brochure to ensure usage and notifies appropriate office of any required change.

6. RECURRING SERVICE CONTRACT:

- **6.1. PERFORMS SITE SURVEY.** Confers with requester, determines specific requirements for the contract, visits as required to gather field data, and reviews as-built drawings.
- 6.2. PREPARES OR REVISES TECHNICAL SPECIFICATION. Prepares or revises layout of work sketches and requirement data. Prepares or revises SOW to include quality standards, performance requirements, personnel qualifications, materials and equipment items required, performance schedules, and methods of inspection.
- **6.3. DEVELOPS COST ESTIMATE.** Develops cost estimate containing personnel, equipment, material, overhead and profit, and contingency costs.

6.4. PREPARES PROJECT PACKAGE FOR CONTRACTING:

- **6.4.1. PREPARES BID SCHEDULE.** Compiles data from drawings and statements of work into a bid schedule indicating the manner in which bids will be received by item.
- **6.4.2. REPRODUCES DRAWING AND SPECIFICATION.** Prepares or assembles the required number of completed final contract packages for contracting.
- **6.4.3. REQUESTS FUNDING.** Requests and obtains funding authority on AF Form 9, Purchase Request, and inserts this document in contract folder.
- **6.5. ATTENDS PRE-BID CONFERENCE.** Discusses project with contracting to ensure inclusion of all contracted requirements and elimination of any ambiguities that could cause issuance of contract change orders.
- **6.6. REVISES CONTRACT SPECIFICATION.** Changes requirements, SOW, and cost estimates at the request of contracting.
- **6.7. ESCORTS PROSPECTIVE BIDDER TO JOB SITE.** Upon notification by contracting, coordinates with prospective bidder and escorts to the job site to preclude overlooking contract requirements.
- **6.8. ATTENDS BID OPEN CONFERENCE.** Reviews bids received by contracting to determine if bids are realistic to the scope and quality of work required and provides advice to contracting.
- **6.9. ATTENDS PRE-PERFORMANCE CONFERENCE.** Discusses all pertinent items in contract specifications with all attendees to ensure that requirements and procedures are understood.
- **6.10. REVIEWS MATERIAL SUBMITTAL.** Confirms that contractor supplied materials comply with the contract specifications.
- **6.11. INITIATES CONTRACT MODIFICATION.** Reviews SOW, revises cost estimates, and coordinates scope of change order with contracting.
- **6.12. PERFORMS QUALITY ASSURANCE.** Inspects the service being performed to ensure it complies with contract requirements.

7. NON-RECURRING SERVICE CONTRACT:

- **7.1. DETERMINES REQUIREMENT.** Determines specific requirements of the requester by reviewing as-built drawing, visiting the work site, and conferring with the requester.
- 7.2. **DEVELOPS COST ESTIMATE.** Develops cost estimate containing personnel, equipment, material, overhead and profit, and contingency costs.

- 7.3. REQUESTS FUNDING. Requests and obtains funding authority on AF Form 9, Purchase Request, and inserts this document in contract folder.
- 7.4. PREPARES SOW. Prepares SOW to include complete description of service required, location, materials, drawings, and time requirements for accomplishment. Includes drawings when necessary.
- 7.5. DRAFTS TRANSMITTAL LETTER. Provides general comments and summary of the contract requirements.
- 7.6. INITIATES CONTRACT MODIFICATION. Reviews original contract specification, revises cost estimates, and coordinates scope of change with contracting.
- 7.7. PERFORMS QUALITY ASSURANCE. Inspects the service being performed to ensure it complies with contract requirements.

8. SURVEYING SUPPORT:

- **8.1. PERFORMS AIRFIELD OBSTRUCTION SURVEY.** Establishes clear and approach zones; identifies and locates such objects as trees, buildings, towers, etc., that may encroach upon the clear zones.
- 8.2. PERFORMS REAL ESTATE SURVEY. Performs land survey and measurements of real estate boundaries concerning acquisitions, disposals, easements, and leased areas.
- 8.3. PERFORMS AIRFIELD PAVEMENT CONDITION SURVEY:
- **8.3.1. PERFORMS CONDITION SURVEY.** Performs a complete survey of all airfield pavements to determine condition, strength, and performance data, and notes any discrepancies.
- **8.3.2. PREPARES EVALUATION REPORT.** Prepares evaluation report on data obtained during survey and submits to ANGRC/DE.
- 8.3.3. INITIATES CORRECTIVE ACTION. Submits work request to initiate corrective action on airfield discrepancies found during survey.
- 8.4. PERFORMS BASE ROAD PAVEMENT CONDITION SURVEY:
- 8.4.1. PERFORMS CONDITION SURVEY.
- 8.4.2. PREPARES EVALUATION REPORT.
- 8.4.3. INITIATES CORRECTIVE ACTION.
- 8.5. PERFORMS ROOF INSPECTION:
- 8.5.1. PERFORMS CONDITION SURVEY.
- 8.5.2. PREPARES EVALUATION REPORT.
- 8.5.3. INITIATES CORRECTIVE ACTION.
- 9. ENGINEERING SUPPORT:
- 9.1. MANAGES CORROSION CONTROL PROGRAM:
- 9.1.1. REVIEWS PROJECT. Reviews designed project for corrosion control aspects.
- **9.1.2. REVIEWS BOILER LOG.** Ensures that boiler water is being maintained in proper chemical balance to avoid corrosive action on interior of heating fixtures.
- **9.1.3. REVIEWS CATHODIC PROTECTION SYSTEM LOG.** Ensures that cathodic protection systems are being maintained properly and are providing adequate protection.
- 9.2. MANAGES ENERGY CONSERVATION PROGRAM:

- 9.2.1. COMPILES DATA. Collects energy consumption data from on-base agencies to determine monthly usage and calculates percent variance between baseline year and current year.
- 9.2.2. PREPARES REPORT. Prepares Energy Consumption Report.
- 9.2.3. DISSEMINATES INFORMATION. Briefs Energy Committee and Facilities Board on the Energy program.
- 9.2.4. PREPARES ENERGY VULNERABILITY ASSESSMENT REPORT. Prepares the report and coordinates it with the installation staff.
- 9.2.5. COORDINATES ENERGY CONSERVATION TASK GROUP MEETINGS AND INITIATIVES.
- 9.3. MANAGES TRAFFIC ENGINEERING PROGRAM:
- **9.3.1. PROVIDES TECHNICAL ASSISTANCE.** Provides technical assistance to Security Police, Safety, or other agency concerning traffic problems.
- 9.3.2. IDENTIFIES TRAFFIC PROJECT. Identifies project to implement new traffic flow and control requirements.
- 9.3.3. ATTENDS TRAFFIC CONTROL MEETING. Prepares for and attends traffic control meeting.
- 9.4. PERFORMS FALLOUT SHELTER ANALYSIS:
- **9.4.1. DETERMINES REQUIREMENT.** Reviews base population figures, fallout shelter structural requirements, and base disaster preparedness plans to determine needs.
- **9.4.2. IDENTIFIES FALLOUT SHELTER.** Reviews as-built drawings and visits facility to determine condition and what improvements are needed.
- 9.5. PROVIDES TECHNICAL ASSISTANCE TO PLANNING ON IN-HOUSE WORK ORDER. Assists shop supervisors, as required, to complete technical aspects of work order with respect to identifying special equipment or materials, identifying proper methods of job accomplishment, providing accurate cost estimates, and evaluating impact of proposed work on existing facilities.
- 9.6. REVIEWS RECURRING MAINTENANCE PROGRAM. Provides periodic technical assistance for reviewing the Recurring Maintenance File and Recurring Maintenance Schedule to determine what new items are added to the file and what items are deleted.
- 9.7. PROVIDES ENGINEERING CONSULTATION. Provides engineering consultation on drawings in file and provides copies of plans and drawings for in-house and external agency use.
- 10. COMPREHENSIVE PLANNING:
- 10.1. DEVELOPS BASE COMPREHENSIVE PLAN (BCP):
- 10.1.1. COLLECTS DATA. Surveys and collects data for analysis identifying existing land and facility resources.
- 10.1.2. ANALYZES MISSION REQUIREMENT. Analyzes installation mission requirements and identifies facilities needed to support the mission. Includes concept plans and site plans for location of mission facilities on the installation.
- 10.1.3. MANAGES ARCHITECT-ENGINEER (A-E) SOW. Manages the A-E SOW for the BCP including A-E selection, fee negotiations, and project coordination.
- 10.1.4. COORDINATES BCP. Coordinates the BCP with installation command and planning staffs.
- 10.1.5. PERFORMS ANNUAL REVIEW. Annually reviews, updates, and submits BCP to higher headquarters.
- 10.2. PREPARES/PRESENTS AIR INSTALLATION COMPATIBLE USE ZONE (AICUZ):

- 10.2.1. CONDUCTS LOCAL/REGIONAL PLANNING COORDINATION. Meets with counterpart planning agency on matters of mutual concern and reviews local planning proposal that would impact ANG mission capability at the base.
- 10.2.2. COLLECTS DATA. Collects data from mission operations to support preparation of the AICUZ report. Coordinates with higher headquarters in the preparation of the report. Reconciles AICUZ program with the BCP to include analysis of mission impact.
- 10.2.3. PERFORMS BIENNIAL REVIEW. Performs biennial review of AlCUZ program, updates as required, and briefs installation command and planning personnel on status.

10.3. PREPARES EXPLOSIVE SAFETY PLAN:

- 10.3.1. RESEARCHES EXPLOSIVE SAFETY. Researches installation explosive safety mission requirement including facility types and locations and quantity distance criteria for each storage location. Includes coordination with safety office on AFM 127-100 requirements. Reconciles explosive safety siting with BCP.
- 10.3.2. PREPARES WAIVER. Prepares waiver, deviation, and explosive safety site plan according to AFM 127-100 criteria. Includes installation explosive safety map; coordinates map with installation command and planning staffs.
- 10.3.3. PREPARES PACKAGE. Prepares explosive safety submittal package to ANGRC/SE, AFISC/SE, and DDESB.
- 10.3.4. IMPLEMENTS CHANGE. Implements change to explosive safety package as mandated by the Air National Guard Bureau.

11. DATA PROCESSING MANAGEMENT:

- 11.1. **DEVELOPS DATA PROCESSING MANAGEMENT.** Develops, executes, and conducts base level management of data processing assets, plans, and programs for data management and tracking. Coordinates purchase of system and program with Communication Management, Base Supply, Comptroller, and Contracting Office.
- 11.2. CHAIRS BCE COMPUTER USERS GROUP. Chairs base level Civil Engineer Computer users group to establish requirement and location of both hardware and software.
- 11.3. CONDUCTS COMPUTER TRAINING. Coordinates with training manager to ensure that all required training is available to ensure upgrading of skills and familiarity with all data systems in use within civil engineering.
- 12. UNIT TRAINING ASSEMBLY (UTA) PREPARATION. Prepares training material to ensure military personnel will meet contingency requirements upon mobilization.

INDIRECT: Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are Supervision, Administration, Meetings, Training, Supply, Equipment Maintenance, and Cleanup. See AFMS 00AA for the standard indirect definition.

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	STANDARD	MANPO	WER	TABL	E						
WORK CENTER/FAC Engineering and Technical Design/ 442X00 AIR FORCE SPECIALTY TITLE AFSC GRADE			APPLICABILITY MAN-HOUR RANGE 96.65 - 341.44 MANPOWER REQUIREMENT								
Civil Engineering	55XX	CIA	1	2	3						
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